

Imagination.

I shall suggest here that a radically new type of imagination is emerging, and that it is about to change us. To sustain this, I shall define "imagination" as the faculty to make and to decipher images. I suspect that many will not agree with this definition. Let them accept it for the duration of this paper.

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If we try to intuit what the first image makers, (for instance those in Lascaux), were doing, we might say the following: Our species, as it appeared in South-western Europe about 40.000 years ago, stood face to face to the world of objects. An abyss separated it from its objective surroundings. That abyss had opened some two million years earlier, when, somewhere in Eastern Africa, some hominid had extended his hand toward objects, in order to apprehend, comprehend and handle them, and who had thus become true man. A subject of objects. Now this gesture of stretching out one's hand toward objects, which simultaneously opens up and tries to bridge the abyss, implies a problem which characterizes all ek-sistence. Namely the fact that hands do not reach out blindly, but follow vision. The problem of coordinating eyes with hands, (theory with praxis), had not been satisfactorily solved before the appearance of Homo sapiens sapiens. The people in the caves of South-western Europe solved it by making pictures.

It is obvious that it is better to look first, and to act later. Because the eyes cover a wider field than the hands do, and they perceive connections between objects, they perceive "contexts", ("Sachverhalte"). So the hands are better informed if they follow vision. There are various difficulties here, however. One is, that the eyes perceive the surfaces of the objects only: they only perceive "phenomena", appearances, and therefore may lead into error. The hands, for which the objects are manifest, may commit mistakes when following vision. Another difficulty is that vision is ephemeral: it appears with the velocity of light, and disappears just as quickly. The hands cannot follow such a fleeting vision, because the manifest objects are more constant. A third difficulty is that vision is subjective: it depends on the point of view of the subject, and that point is constantly changing. The objects to be handled by the hands can be viewed from numerous points of view, and the hands which follow a single one may miss what they aim at in the object. Thus, if vision is to guide the act, if it is to be a map for acting, it must somehow be made manifest, it must somehow be fixed, and it must somehow be made accessible to many points of view, made "intersubjective". This was done when images were made manifest, fixed and accessible to many subjects on the cave walls.

To make an image, one must step back from the objects and deeper into subjectivity, into "transcendence". From such a distance the hands can no longer reach the objects they aim at. What they now handle is previously viewed surfaces of objects, as they are stored in memory, they handle symbols of objects. Making an image is a symbolic gesture, where the hands no longer handle the world outside, but the subjective world. Even if they use objects like paints or cave walls to do this. Now such a motion of the hands away from the outside world and into subjecti-

ty will result in a revolution inside the subject. The hands which manipulate symbols, manipulate the consciousness of the subject, and they create therein a new faculty, "imagination". The making of images provokes imagination, and as this image making goes on during the millenia, imagination becomes ever more powerful and productive. Man is a being which constitutes itself: by handling objects man constitutes himself into a subject, and by making images he constitutes himself into an imaginative subject.

Images are meant to serve as maps for subsequent action. For instance for the hunt of bulls and ponies. They mediate between man and his action upon the objective world. Like every mediation, they are subject to an internal dialectics. They represent the objective world for man, but, by doing so, they interpose themselves between man and the world. Thus an intermediary region, the "imaginary world", dresses itself in front of man, and as time goes on man will act in function of that world. He will inverse the original relation between image and objective world, and, instead of using the images as maps of that world, he will tend to act within the objective world in function of the imaginary world. His actions will tend to become symbolic, "magic", namely as if the objective world were an image. And this action will, in its turn, magicize all of his experiences, all his knowledge, and all his experiences. He will have forgotten that the images are his own products, he will alienated himself from his own products, and he will take them for superior powers. The images will end up covering the objective world, which is what the Pre-socratics mean by "lethe", (the forgetting of Being), and the prophets by "idolatry", (the mistaking of images for Being). Imagination will have resulted in hallucination.

It thus became necessary to render the images transparent again, to explain them. This was achieved by the invention of writing, an event which happened in the eastern part of the Mediterranean, and which took three thousand years, (from the fifth to the second millenium B.C.), to develop. Writing is a method to describe, explain the imaginary world, to show what that world means, and it achieves this by unrolling the images into lines composed of symbols which were originally themselves simplified images, (pictograms), but which became ever more abstract. Thus writing is a counting, recounting, calculating of image contents. It is a step back from the images and a step which goes farther away from the objective world and into abstraction. This step will result in a new revolution within the subject, and it will bring about a new level of consciousness, namely "historical", "conceptual" consciousness. Thus writing is, by its very structure, a de-magicizing, iconoclastic gesture, and the first fully conscious texts, like those written by the Pre-socratics and simultaneously by the prophets, show this.

Texts are meant to criticize images and imagination, by unrolling them, (translating them), into concepts. But images and imagination defend

themselves against being thus torn apart. As the texts go on explaining the images, the images, in their turn, illustrate the texts which explain them, and as concepts go on conceiving imagination, imagination, in its turn, imagines the concepts which conceive it. This struggle between imaginative and conceptual thinking characterizes the whole of Western history, and it strengthens both conceptualization and imagination. In the end, the most powerful imagination will articulate itself in the conceptual texts of the sciences, and the most powerful conceptualisation in images of the type called "abstract".

However, it is not this infiltration of imaginative into conceptual thought which will prove to ^{be} its danger, but a different development altogether. The texts, like the images which preceded them, are meant to be maps for subsequent action upon the objective world. They are lines of concepts which mean the objective world, and these lines are meant to be aposed upon the objective world, "adequated" to it, in order to permit "rational" action, action informed by concepts. Now those concepts are ordered within their lines according to specific rules, "orthographic" and "grammatical" rules which may be reduced to the rules of logic and mathematics. We are now beginning to discover that, when we project our texts against the objective world, we project those rules against the world. The so-called "laws of nature" is not, (as we are beginning to discover), something we find in the world, but something we have injected into it. It is not that heavy bodies fall with geometrical acceleration, but it is that we conceive them falling thus in accordance with the rules of conceptual thinking.

We are discovering this in those regions of the objective world where it decomposes itself into particles which somehow refuse to obey to the rules of conceptual thinking. And this means that we are discovering that our texts cover up the objective world just as much as did the images before them. And that we are inverting the relation "text-world" just as much as magic inverted the relation "image-world". By this textolatry of ours we apprehend, comprehend and manipulate the objective world as if it were a text, "natura libellum". We try to decipher the objective world, as if it were composed of symbols, and not of the meaning of symbols. As if the world were significant, and not signified. And now that we begin to discover that the objective world is not significant, but that it is our significant texts which signify it, we come to discover also that the rules of conceptual thinking are conventional rules, which might perfectly be different from the ones we are now applying. That it is perfectly feasible to substitute linear, (causal, processual, historical), thought for a thought differently structured. We are losing confidence, (faith), in conceptual thinking, just as faith was lost previously in magic thinking.

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As the rules which order the concepts into lines begin to decay, the concepts, like pearls on a torn necklace, begin to fall apart and to form chaotic heaps. The result is that the objective world those concepts mean begins to appear as a heap of unconnected elements, like subatomic particles or quanta. And

What conceptual consciousness which contains those concepts begins to appear as a heap of unconnected elements like bits of information, actomes or decision quanta. Now such a point-like, zero-dimensional, mosaic-situation which tends to fall apart, (to fall into entropy), is both unconceivable and unimaginable, and it permits no action. Something must be done to re-integrate the loose elements, to compute what has, for more than three thousand years, been calculated. We are stepping, by stepping back from our texts, into the abyss of total abstraction, in which both subject and object will dissolve into nothing, and this cannot be tolerated. What I am suggesting in this paper is that out of this intolerable abyss a radically new type of imagination is emerging.

The concepts, torn out from their lines, from their texts and contexts, have become unconceivable for humans. But we can invent apparatus which may handle those concepts without trying to conceive them. Apparatus which are sufficiently intelligent to compute those concepts, and sufficiently stupid not to try and conceive what they are doing. Those apparatus may, if suitable instructed, (programmed), compute the point-like concepts into image-like surfaces, and make those images appear on the terminals of those computers. All we need to do is to codify the concepts into computer programs.

The images, as they appear on the terminals, may look like traditional images, but they are quite unlike them. Traditional images are abstractions from objects, they "analyze" objects. The new images are concretions of concepts, they "synthesize" concepts. Traditional images are the products of an imagination which steps back from the objects into abstraction. The new images are the products of an imagination which steps away from concepts and back toward concreteness. The traditional images mean the objective world. The new ones, even if they sometimes seem to show objects, mean concepts. In fact, the purpose of the new images is to give an imaginative meaning to concepts which are in danger of becoming meaningless, empty concepts.

If we observe the new images, as they appear on terminals, we might feel disappointed. The reason for this is double. For one, we have not yet learned how to use our new imagination, and we will have to produce many more images, before this new faculty of ours will truly develop. For the other reason, we have not yet learned how to decipher the new images, and take them to be images of objects, (for instance rocks, or plants, or oranges), when in reality they are images of concepts, (for instance fractal equations, or topological systems). To be sure: even now we see these "impossible" objects, (for instance four-dimensional cubes which rotate in the fifth dimension). But this is like nothing if compared with the visions our new imagination is preparing. Everything that is conceivable will become imaginable: all our scientific, aesthetic, political, philosophical and theological concepts will become images to watch in color and motion. A new universe of imaginary concepts will emerge, and this will change us. We shall no longer conceive in order to explain images, but in order to produce them. We shall no longer conceive in order to discover meanings, but in order to produce meanings. We shall become free in a sense which previously was neither conceivable nor imaginable.